Pyridoxamine 5'-phosphate

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Cat. No.:	HY-B1746				
CAS No.:	529-96-4				
Molecular Formula:	$C_8H_{13}N_2O_5P$				
Molecular Weight:	248.17				
Target:	Endogenous Metabolite				
Pathway:	Metabolic Enzyme/Protease				
Storage:	Powder	-20°C	3 years		
		4°C	2 years		
	In solvent	-80°C	6 months		
		-20°C	1 month		

SOLVENT & SOLUBILITY

		Solvent Mass Concentration	1 mg	5 mg	10 mg
l	Preparing Stock Solutions	1 mM	4.0295 mL	20.1475 mL	40.2950 mL
	5 mM	0.8059 mL	4.0295 mL	8.0590 mL	
	10 mM	0.4029 mL	2.0147 mL	4.0295 mL	

BIOLOGICAL ACTIVITY			
Description	Pyridoxamine 5'-phosphate is the active form of vitamin B6 bound to phosphoric acid. Pyridoxamine 5'-phosphate is the aminated form of <u>pyridoxal 5'-phosphate hydrate</u> (HY-W011727A) and as co-factor of a variety of enzymes central metabolite, potent antioxidant, vitamin B6 vitamer and enzyme substrate. Pyridoxamine 5'-phosphate can be interconverted with pyridoxal 5'-phosphate hydrate ^[1] .		
IC ₅₀ & Target	Human Endogenous Metabolite		
In Vitro	Pyridoxamine 5'-phosphate can be transformed from pyridoxal 5'-phosphate. Purified His-tagged omega-TA CV2025 from Chromobacterium violaceum is capable of complete conversion of pyridoxal 5'-phosphate to pyridoxamine 5'-phosphate in the presence of (S)-α-methylbenzylamine (MBA) as the amine donor. MCE has not independently confirmed the accuracy of these methods. They are for reference only.		

REFERENCES

Product Data Sheet

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[1]. Seo JH, et, al. Necessary and sufficient conditions for the asymmetric synthesis of chiral amines using ω-aminotransferases. Biotechnol Bioeng. 2011 Feb;108(2):253-63.

Caution: Product has not been fully validated for medical applications. For research use only.

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